

NPDES Notification Requirements

The California Department of Food and Agriculture intends to conduct a treatment program in compliance with the National Pollution Discharge Elimination System General Permit No. CAG990005S for Algae and Aquatic Weed Control Applications. All applicable Best Management Practices will be employed during treatment.

- 1) Name of herbicide(s) (product name, USEPA Reg. No., active ingredient):

Sonar SRP – fluridone – EPA Reg #67690-3

Sonar AS – fluridone – EPA Reg #67690-4

Sonar H4C – fluridone – EPA Reg #67690-61

Komeen – copper ethylenediamine – EPA Reg #67690-25

Harpoon – copper ethylenediamine –EPA Reg #1812-312

Aquathol K – dipotassium salt of endothall –EPA Reg #70506-176

- 2) Purpose of use:

Control of Hydrilla verticillata

- 3) General time period and locations of expected use (attach map if needed):

Start Date: **May 15, 2017** End Date: **November 30, 2017** .

Location:

Clear Lake - Lake County

Water Restrictions or precautions to be followed during treatment:

See attachment

Any questions regarding the treatment at Clear Lake can be directed to Mike Meske, Hydrilla Eradication Project, California Department of Food and Agriculture #(707)263-1649.

Irrigating and Fluridone (Sonar) in Clear Lake

The fluridone (Sonar) treatments for hydrilla in Clear Lake should not cause any problems under nearly all circumstances. If there were problems, they would probably first show up from using lake water to water plants, but even here problems are very unlikely. Over the last several years, the Hydrilla Project has measured fluridone levels hundreds of times in and around treatment areas in Clear Lake. These measurements show that the levels of fluridone are usually very low, so low that they will not hurt even the most sensitive plants, even within the treatment areas themselves.

The most sensitive plants are in the nightshade family, which has many familiar garden plants (see list below). These plants will be harmed by water that contains five (5) or more parts per billion (ppb) of fluridone. The only other highly sensitive plants are young grasses, such as in a newly planted lawn. Other plants will not be harmed unless the level reaches ten (10) ppb or more. Fluridone is a slow-acting herbicide so it would take two or three weeks of watering to cause damage.

Water samples are taken before and after each treatment. The Hydrilla Program completed an extensive analysis of 462 water samples for fluridone from 2004 through 2010. The samples came from inside and next to treatment areas. Of 462 samples, two had fluridone concentrations over 5 ppb. One of them had 5.7 and the other had 10.4 ppb. Most samples were much lower: 322 samples had less than 0.5 ppb, 83 had 0.5 to 1 ppb, and another 38 had 1 to 2 ppb. Over 99.5% of the time, the Sonar in the water could not harm even the most sensitive plants. Furthermore, since 2007, one of the two permanent sampling sites was in one of the largest, most sheltered and enclosed treatment areas, in Soda Bay. Such conditions lead to higher concentrations of fluridone, and the sampling site was intentionally placed in what should be a “worst case” situation. Similar results were found from 2010 – 2016 and there were no samples resulting in concentrations over 5 ppb.

Although we are not aware of any damage around Clear Lake from using the lake water for irrigation, there is one situation where fluridone might build up to where it could hurt plants. That situation would happen in highly protected or sheltered areas that were receiving direct applications of Sonar. Such areas might include enclosed marinas with only a narrow access to the lake, narrow sloughs, or, possibly, very sheltered coves. These areas would only be at risk if they receive applications directly in the area. Fluridone will be very low in any location that is open to the usual wave action in the lake. If you are in a treatment area and believe it is a highly sheltered situation, we recommend using city or well water for irrigation.

Common garden plants in the nightshade family:

Vegetables: tomatoes, potatoes, hot and sweet peppers, eggplant, tomatillos

Ornamentals: petunias, flowering tobacco (Nicotiana), potato vines, Datura, Browallia, Brugmansia, Cestrum, Nicandra, Nierembergia, Salpiglossis, Schizanthus, Solandra

Irrigating and Endothall (Aquathol K) in Clear Lake

The Hydrilla Eradication Project is exploring the use of endothall as an alternate herbicide for the treatment of hydrilla this coming season. We will be introducing this herbicide within the next few years in some areas that are approaching eradication. Endothall is selective in the sense that some aquatic plants show greater susceptibility to endothall treatment than others; for example, hydrilla is very susceptible and elodea, a common native plant is not. It is safe to use water treated with endothall to irrigate established landscape areas and there are no restrictions for fishing or swimming.